Fiscal Year:	FY 2013	Task Last Updated:	FY 08/05/2013
PI Name:	Kozlowski, Steve Ph.D.		
Project Title:	Measuring, Monitoring, and Regulating Teamwork for Long Duration Missions		
Division Name:	Physical Sciences		
Program/Discipline:	HUMAN RESEARCH		
Program/Discipline			
Element/Subdiscipline:	HUMAN RESEARCHBenavior and performance		
Joint Agency Name:		TechPort:	Yes
Human Research Program Elements:	(1) HFBP :Human Factors & Behavioral Performance (IRP Rev H)	
Human Research Program Risks:	(1) Team : Risk of Performance and Behavioral Health Communication, and Psychosocial Adaptation within a	Decrements Due to Inadequate Co Team	operation, Coordination,
Space Biology Element:	None		
Space Biology Cross-Element Discipline:	None		
Space Biology Special Category:	None		
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Zip Code:	33620	Congressional District:	12
Comments:	I moved from Michigan State University to the University	sity of South Florida in August 202	20.
Project Type:	ATD (2004)	Solicitation / Funding Source:	00-HEDS-02
Start Date:	08/16/2013	End Date:	08/15/2016
No. of Post Docs:		No. of PhD Degrees:	
No. of PhD Candidates:		No. of Master' Degrees:	
No. of Master's Candidates:		No. of Bachelor's Degrees:	
No. of Bachelor's Candidates:		Monitoring Center:	NASA JSC
Contact Monitor:	Leveton, Lauren	Contact Phone:	
Contact Email:	lauren.b.leveton@nasa5.gov		
Flight Program:			
Flight Assignment:			
Key Personnel Changes/Previous PI:			
COI Name (Institution):	Biswas, Subir (Michigan State University) Chang, Chu-Hsiang (Michigan State University)		
Grant/Contract No.:	NNX13AM77G		
Performance Goal No.:			
Performance Goal Text:			

Task Description:	This proposal is for ground-based research: PRD Risk: Risk of Performance Decrements Due to Inadequate Cooperation, Coordination, Communication, and Psychosocial Adaptation within a Team. IRP Gap – Team1: Understand the key threats, indicators, and life cycle of the team for autonomous, long duration, and/or distance exploration missions. Collaboration, cohesion, and coordination are essential teamwork processes, especially for long duration space crews that perform in isolated, confined, and extreme (ICE) environments. Teamwork is critical for minimizing errors and enhancing team performance and reflects team adaptation to the rigors of long duration missions. Over 50 years of research documents the contribution of team processes to team effectiveness. Unfortunately, the vast majority of this research is cross-sectional (static). Thus, there is little scientific knowledge regarding how team processes and psyche-social health vary over long durations in ICE conditions, the persistence of disruptive internal and external shocks, and the types of countermeasures that can regulate effective teamwork. The proposed research has three specific aims and deliverables that yield an integrated approach for measuring, monitoring, and regulating teamwork processes and team functioning: (1) Benchmark long duration team functioning in ICE environments. This research will use Experience Sampling Methods (daily assessments) to assess team functioning in ICE environments. The goal is to quantify expected variation in key team processes, identify internal and external shocks, and assess dynamic effects on team performance. Such data are essential for developing standards to distinguish normative variation from anomalies indicative of a threat to team functioning which are necessary for triggering countermeasures. (2) Extend engineering development of an unobtrusive monitoring technology (wearable wireless sensor package). The product is to further develop a prototype monitoring technology (tearable wireless sensor package). The
Rationale for HRP Directed Research:	anomalous patterns of team functioning; monitoring team member interactions; and providing regulation support to maintain teamwork and to trigger countermeasures when needed to aid team recovery.
Research Impact/Earth Benefits:	
Task Progress:	New project for FY2013.
Bibliography Type:	Description: (Last Updated: 07/05/2023)